

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference 04-108	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/US04/05905	International filing date (day/month/year) 27 February 2004 (27.02.2004)	Priority date (day/month/year)	
International Patent Classification (IPC) or national classification and IPC IPC: G09G 5/00(2006.01) USPC: 250/221,222.1;340/541,545.3,555, 556, 557;345/175,177;341/26			
Applicant OTIS ELEVATOR COMPANY			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>3</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 15 December 2005 (15.12.2005)		Date of completion of this report 16 October 2006 (16.10.2006)	
Name and mailing address of the IPEA/ US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Authorized officer Stephone B. Allen Telephone No. 703-000-0000	

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/US04/05905

Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☐ the international application in the language in which it was filed.
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4(a))
- ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-10 as originally filed/furnished
- pages* NONE received by this Authority on _____
- pages* NONE received by this Authority on _____
- ☒ the claims:
- pages NONE as originally filed/furnished
- pages* NONE as amended (together with any statement) under Article 19
- pages* 11-13B received by this Authority on 15 December 2005 (15.12.2005)
- pages* NONE received by this Authority on _____
- ☒ the drawings:
- pages 1 as originally filed/furnished
- pages* NONE received by this Authority on _____
- pages* NONE received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/figs NONE
- ☒ the sequence listing (*specify*): NONE
- ☒ any table(s) related to the sequence listing (*specify*): NONE

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US04/05905**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims <u>1-11</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-11</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-11</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and Explanations (Rule 70.7)

Claims 1-11 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a method and apparatus for providing non-contact data selection comprising transmitting means comprising means for transmitting a plurality of acoustic signals from at least three groupings, each of the at least three groupings comprising a signal emitter for emitting one of the plurality of acoustic signals of a unique frequency and a signal receiver for receiving one of the plurality of acoustic signals, means for altering the path of at least one of the transmitted plurality of acoustic signals through interaction with a selection device, means for detecting at least one of the altered plurality of acoustic signals; means for determining a position of the selection device from the at least one of the altered plurality of acoustic signals, and means for correlating the position of the selection device to the at least one data selection.

Claims 1-10 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----

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CLAIMS

WHAT IS CLAIMED IS:

1. A method of providing non-contact data selection, comprising the steps of:

providing at least one data selection;

transmitting a plurality of signals in proximity to said plurality of data selections;

said transmitting step comprising transmitting a plurality of acoustic signals from at least three groupings, each of said at least three groupings comprising a signal emitter for emitting one of said plurality of acoustic signals of a unique frequency and a signal receiver for receiving one of said plurality of acoustic signals;

altering the path of at least one of said transmitted plurality of acoustic signals through interaction with a selection device;

detecting at least one of said altered plurality of acoustic signals;

determining a position of said selection device from said at least one of said altered plurality of acoustic signals; and

correlating said position of said selection device to said at least one data selection.

2. The method of claim 1 wherein said altering step comprises reflecting each of said plurality of acoustic signals off of

12/12/05

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said selection device for reception by one of said plurality of signal receivers.

3. The method of claim 1 wherein said determining step comprises measuring an amount of time between the emission of each of said plurality of acoustic signals and reception by said plurality of signal receivers, converting said amounts of time to a plurality of distances, and using said plurality of distances to locate said selection device.

4. The method of claim 1 wherein said providing said at least one data selection comprises providing said at least one data selection on an elevator.

5. A method of providing non-contact data selection, comprising the steps of:

providing at least one data selection;

transmitting a plurality of signals in proximity to said plurality of data selections;

said transmitting step comprising emitting a plurality of electromagnetic signals from a plurality of signal emitters each aimed at a corresponding signal receiver;

altering the path of at least one of said transmitted plurality of signals through interaction with a selection device;

said altering step comprising partially blocking said path of at least one of said plurality of electromagnetic signals;

15.12.2005

detecting at least one of said altered plurality of signals;

said detecting step comprising measuring an intensity of each of said electromagnetic signals at each of said plurality of signal receivers;

determining a position of said selection device from said at least one of said altered plurality of signals; and

correlating said position of said selection device to said at least one data selection.

6. The method of claim 5 wherein said providing said at least one data selection comprises providing said at least one data selection on an elevator.

7. A non-contact data selection system comprising:

at least one data selection;

means for transmitting a plurality of signals in proximity to said plurality of data selections;

said transmitting means comprising means for transmitting a plurality of acoustic signals from at least three groupings, each of said at least three groupings comprising a signal emitter for emitting one of said plurality of acoustic signals of a unique frequency and a signal receiver for receiving one of said plurality of acoustic signals;

means for altering the path of at least one of said transmitted plurality of acoustic signals through interaction with a selection device;

means for detecting at least one of said altered plurality of acoustic signals;

means for determining a position of said selection device from said at least one of said altered plurality of acoustic signals; and

means for correlating said position of said selection device to said at least one data selection.

8. The system of claim 7 wherein said at least one data selection corresponds to a floor accessible by an elevator.

9. The system of claim 7 wherein said altering means comprises means for reflecting each of said plurality of acoustic signals off of said selection device for reception by one of said plurality of signal receivers.

10. The system of claim 7 wherein said determining means comprises means for measuring an amount of time between the emission of each of said plurality of acoustic signals and reception by said plurality of signal receivers, means for converting said amounts of time to a plurality of distances, and means for using said plurality of distances to locate said selection device.

11. A non-contact data selection system comprising:

at least one data selection;

means for transmitting a plurality of signals in proximity to said plurality of data selections;

said transmitting means comprising means for emitting a plurality of electromagnetic signals from a plurality of signal emitters each aimed at a corresponding signal receiver;

means for altering the path of at least one of said transmitted plurality of signals through interaction with a selection device;

said altering means comprising means for partially blocking said path of at least one of said plurality of electromagnetic signals;

means for detecting at least one of said altered plurality of signals;

said detecting means comprising means for measuring an intensity of each of said electromagnetic signals at each of said plurality of signal receivers;

means for determining a position of said selection device from said at least one of said altered plurality of signals; and

means for correlating said position of said selection device to said at least one data selection.